

What is claimed is:

1. A Brassica napus plant comprising seed having a total glucosinolates content of about 18  $\mu\text{mol/g}$  or less of defatted, air-dried meal;
- 5 the seed yielding oil having an  $\alpha$ -linolenic acid content of 7% or less relative to total fatty acid content of said seed and a sulfur content of less than or equal to 3.0 ppm; and
- 10 the plant belonging to a line in which these traits have been stabilized for both the generation to which the seed belongs and that of its parent generation.
- 15 2. The seed produced by the plant of Claim 1.
3. The seed produced by the plant of Claim 1 wherein total glucosinate content is about 15  $\mu\text{mol/g}$  or less of defatted, air-dried meal.
4. The oil of the seed produced by the plant of Claim 1.
- 20 5. A Brassica napus plant designated IMC 01 represented by seed deposited with the ATCC and bearing accession number 40579.
6. The oil produced from the variety of Claim 5.
- 25 7. A Brassica napus seed yielding canola oil having, when hydrogenated, significantly reduced overall room-odor intensity relative to the overall room-odor intensity of generic canola oil, a significant difference in overall room odor-intensity indicated by a difference of greater than 1.0 obtained in a standardized sensory evaluation.
- 30 8. A Brassica napus comprising oil, which when non-hydrogenated, is significantly reduced in fishy odor intensity relative to the fishy odor intensity of generic canola oil, a significant difference in fishy odor intensity indicated by a difference of greater than 1.0 obtained in standardized sensory evaluation.
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9. A Brassica napus plant wherein at least one parent was the variety of Claims 1 or 5.

10. The progeny of the plant of Claims 1, 5 or 9.

11. A plant produced from the crossing of IMC 01 5 with an agronomically elite variety of Brassica napus, the plant yielding a seed having a total glucosinolates content of about 18  $\mu\text{mol/g}$  or less of defatted, air-dried meal, said seed yielding extractable oil having (1) an  $\alpha$ -linolenic acid content of about 7% or less 10 relative to total fatty acid content of said seed, and (2) a sulfur content of less than or equal to 3.0 ppm.

12. The plant of Claim 11, wherein the agronomically elite parent is the Canadian canola line, Westar.

15 13. A process for producing a canola of enhanced commercial utility comprising:

(a) crossing the Brassica napus IMC 01 with an agronomically elite variety;

20 (b) selecting the off-spring of step (a) which yield a seed having a total glucosinolates content of about 18  $\mu\text{mol/g}$  or less of defatted, air-dried meal, said seed yielding extractable oil having (1) an  $\alpha$ -linolenic acid content of about 7% or less relative to total fatty acid content of said seed, and (2) a sulfur content of less than or equal to 3.0 ppm.

25 14. The oil extracted from the seed produced by the process of Claim 13.

30 15. A method of using the Brassica napus IMC 01 comprising:

(a) crossing IMC 01 with an agronomically elite variety;

35 (b) selecting the off-spring of step (a) which yield a seed having a total

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glucosinolates content of about 18  $\mu\text{mol/g}$  or less of defatted, air-dried meal, said seed yielding extractable oil having (1) an  $\alpha$ -linolenic acid content of about 7% or less relative to total fatty acid

5 content of said seed, and (2) a sulfur content of less than or equal to 3.0 ppm;

(c) producing sufficient progeny of the seed selected in step (b) to extract oil.

10 16. The Brassica napus designated HW 3.001, a progeny line of the cross of IMC 01 with Westar.

15 17. An improved vegetable oil extracted from Brassica napus seeds, said seeds having:

(1) an oil which exhibits following crushing and extraction

(a) an  $\alpha$ -linolenic acid content of 7% or less relative to total fatty acid content of said seed;

(b) a sulfur content of less than or equal to 3.0 ppm; and

20 (2) a total glucosinolates content of about 18  $\mu\text{mol/g}$  or less of defatted, air-dried meal.

25 18. The oil produced from the progeny of Claim 1, 5 or 9, as described in Claim 10, wherein the stability of such oil measured in AOM hours is from about 25.0 to about 35.0.

19. The oil as described by Claim 18 wherein the stability in AOM hours is from 26.8 to 31.5.

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